

NEWSLINE

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DON GONZALEZ/TID

John McTague, UC Vice President for Lab Management (far left), Anne Altman, managing director for IBM U.S. Federal Government, and Gen. John Gordon, NNSA administrator, attend the ASCI ceremony.

ASCI White partnership celebrated

By Elizabeth Campos Rajs
NEWSLINE STAFF WRITER

Hailing ASCI White as the “foundation of science-based Stockpile Stewardship,” NNSA Administrator Gen. John Gordon led the formal unveiling

Wednesday of the world’s fastest supercomputer.

“Today we mark the dedication of a tool that is important on so many levels — to the sustained future of our national security and nuclear deterrence, to the future of science and the

computer industry, and to the future of this great Laboratory,” Gordon told Lab employees, community leaders, visiting dignitaries and news media gathered in Bldg. 451.

See ASCI, page 8

Teller receives rare historic medal for arts and science

By Sheri Byrd
NEWSLINE STAFF WRITER

Dr. Edward Teller, LLNL Director Emeritus, was honored this week with the Hungarian Corvin Medal, an honor bestowed by the Hungarian government for exceptional achievement in the arts and sciences.

The award was presented in a private ceremony before a standing-room-only gathering in Teller’s home at Stanford University. Delegates representing the Hungarian Prime Minister Viktor Orban and the Hungarian consulates in San Mateo and Los Angeles read the proclamation in Hungarian. They were obviously pleased as Teller, who was born in Budapest in 1908, responded in his mother tongue.

In the ceremony’s opening remarks, given in both languages, the diplomats explained that the Corvin Medal was revived this year by the prime minister, after having last been awarded in 1930.

“I am standing face to face with history,” said Attila Varhegyi, one of the Hungarian delegates. “The name of Edward Teller is more than just a person, it’s a symbol for Hungary. Edward Teller is the most distin-

See TELLER, page 3

Gordon calls for rebuilding trust, cooperation

By Anne M. Stark
NEWSLINE STAFF WRITER

The National Nuclear Security Administration needs to promote leadership, trust building and communication with minority communities at the nation’s nuclear security laboratories.

That was the message NNSA Administrator Gen. John Gordon sent Wednesday as he addressed a full Sandia auditorium on “The Importance of Diversity Within the NNSA.”

Gordon said that next week’s Tri-Lab Meeting, at which employees and senior managers from Lawrence Livermore, Los Alamos and Sandia will engage in discussions of “best practices” of each

See DIVERSITY, page 5



RANDY WONG/SANDIA

NNSA Administrator Gen. John Gordon, far right, listens to Lab employees Kalina Wong, center, and Darlene Yazzie following his diversity talk Wednesday.

Door opens to new explosives test era at Site 300

By Sheri Byrd
NEWSLINE STAFF WRITER

With the symbolic unsealing and opening of the 22-ton mechanized door, more than 200 dignitaries, employees and community guests witnessed Wednesday’s dedication of Site 300’s new Contained Firing Facility (CFF).

The CFF, with its 2880 cubic meter firing chamber, allows Lab scientists to conduct indoor high-explosives

See CFF, page 7



Running for those who can't

— Page 2



Guard against identify theft

— Page 4



Celebrating diversity

— Page 5



LAB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar, page 4

Friday
17

The deadline for signing up for the **LLLWA annual membership drive** and scholarship fundraiser luncheon is today. This year's luncheon will be held on Thursday, Aug. 23 from 11:30 a.m. to 1:30 p.m. at Retzlaff Vineyards. Contact: Lara Daily, 2-6932.

• • •

The **www-ais Web server** will be unavailable, from 6 p.m. today, until 3 p.m. Saturday for system maintenance. This outage will affect multiple applications including Classified Ads, Extensity, LTRAIN, TOPS, and LITE, among others. Contact: Service Management Center, 3-0586 or remoteop@llnl.gov.

Monday
20

The OPSEC Program has invited representatives from the Federal Trade Commission to discuss **identity theft** at 2 p.m. in the Bldg. 123 auditorium. The briefing is open to all employees. Contact: OPSEC Program Office, 2-5000.

Tuesday
21

The Benefits Office is offering a workshop on **"Basic Investment Planning and Savings,"** 8:30 a.m.-noon or 1-4:30 p.m. at the Training Center. Cost is \$45; register by visiting the Benefits Office Website at <http://www.llnl.gov/jobs/benefits> and click on Workshop Registration, or call the Training Center at 4-3849.

Wednesday
22

LLESA's Vaqueros del Mar Networking Group is starting a new session of **entry level scuba diving classes.** This is a six-week course, held Wednesday from 6-10:30 p.m. in Bldg. 415, Room 103. The course cost is \$125 plus an equipment rental fee. Contact: Ben Odegard, 294-2789. Students do not have to be Lab employees but must be at least 18 years old.

Thursday
23

Chemistry & Materials Science is hosting a new monthly lecture series by NIF technical and program leaders on **"The Materials and Chemistry of NIF,"** beginning with a talk on "The National Ignition Facility: An Overview" by Ed Moses on Aug. 23 at 2:30 p.m. in Bldg. 235's gold room. Contact: Lisa Rose-Webb, 2-5609.



BROADCAST
SCHEDULE

The **ASCI White dedication ceremony**, featuring NNSA Administrator John Gordon, will be rebroadcast on Lab TV channel 2 on Thursday, Aug. 23, at 10 a.m., noon, 2, 4, 8 p.m. and Friday, Aug. 24, at 4 a.m.

Runner strives to raise arthritis awareness

By Ali Carrigan

NEWSLINE STAFF WRITER

Jim Vickers is going to run a marathon to help others who have a hard time walking.

Vickers, a senior laser technologist in the Laser Engineering Division, is currently in the midst of a 20-week training program that will help prepare him to run the 26-mile Honolulu Marathon on Dec. 9.

He is running for the Arthritis Foundation's "Joints in Motion" team and is raising support for the Foundation's Northern California work in exchange for his training, transportation, and entry fees.

"I've never run more than five miles in my life, so this is going to be a big challenge for me," Vickers said. "I'm focused less on the actual marathon and more on raising support at the moment."

Vickers started running only two years ago, and first saw an ad for the Joints in Motion team in the magazine *Runner's World*.

"We're trying to raise awareness about arthritis and the problems it causes," Vickers said. "Part of my motivation for running is to honor my great aunt, who has arthritis."

Vickers also noted that donations to the team are tax-deductible and funds stay in Northern California to conduct arthritis research and educate people about causes and cures.

Vickers' training consists of a series of graduated distance runs and tempo training once a week.



Jim Vickers

"Tempo training is intense," Vickers said. "You start with a mile to warm-up, then you do three exercises, then you do three more miles, and this repeats."

The training team is also running twelve or thirteen miles a week now, which isn't all bad, according to Vickers.

"It's a lot of fun. You get to meet nice people," Vickers said. "It's a chance to think about what I want to do on vacation, or what I'm doing next week."

While he is not thinking about the marathon just yet, Vickers admitted that it would provide a challenge.

"The Honolulu Marathon starts at 5 a.m. because it gets extremely humid, so we're trying to beat that," he said. "I'll get to run across Waikiki Beach and around Diamond Head, which is

some beautiful scenery to run through."

But his most important goal, he stressed, is getting the word out about the work that the Arthritis Foundation does.

"I want people to know what's going on," Vickers said. "This is a way that I can help get the word out."

For more information about the Arthritis Foundation's work or the Joints In Motion team, contact Jim Vickers at 3-6321.

IN MEMORIAM

Johannes Ruys

Services have been held for Lab retiree Johannes Ruys who died July 13 in Sedro-Woolley, Wash. He was 84.

Ruys was born March 29, 1917 in Zaandam, Netherlands. He moved to the United States in 1927.

He studied engineering at UC Berkeley for three years and joined the Laboratory in 1950.

At the time of his retirement in 1980, he was a senior engineering associate in Electronics Engineering.

Shortly after retiring, Ruys and his wife moved to Washington.

Ruys is survived by his wife of 59 years,

Maria; son, John Daniel Ruys of Rancho Cordova, Calif.; two grandsons and two granddaughters. His daughter, Maria Sophie Ruys, preceded him in death.

Contributions in his memory may be made to a favorite charity.

Lionel Viales

Services have been held for Lionel Octavio Viales, a Lab retiree, who died July 10. He was 78.

Viales worked in the Budget Office. He was an active member of the Orinda Community Church and sang in the choir.

Survivors include his wife, Clare, two daughters and a son.

Cardboard only in bins

Remember: the exterior maroon cardboard recycling bins are for cardboard only.

Packing material can contaminate an entire load.

Programs that generate large amounts of packing "peanuts" can drop bagged material off at Bldg. 411 for reuse.

For more information or to offer recycling suggestions, call the Earth Hotline (E-ARTH).



Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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TELLER

Continued from page 1

guished Hungarian living in the world today.”

Maria Schmidt, of the Hungarian delegation, said that the prime minister considers Teller's contributions toward ending the Cold War to be the primary force behind the fact that Hungary is again a free nation today.

“Everybody in Hungary knows Edward Teller's name. He made progress not only for Hungary, but for the world,” said delegate Szabolcs Kerek-Barczy.

One audience member said after the ceremony that as a child in Hungary, he knew the names of two famous Hungarians, the 19th century composer Franz Liszt and Edward Teller.

The presentation honored Teller's work on the hydrogen bomb for having “helped end the Cold War without bloodshed.” Teller himself, who has received a multitude of honors from around the world, said that this one accomplishment is what he believes to be his greatest achievement.

The Hungarian delegates spoke of Teller's accomplishments not only as a scientist, but as a poet and pianist as well. “I am touched by the way he talks about the future of Hungary and often cites Hungarian poetry to support his arguments,” Varhegyi said.

After the gleaming gold medal with his name engraved on the back was placed around his neck, Teller thanked Prime Minister Orbán, and also recognized his fellow Hungarian scientists and their contributions to modern science.

“The 20th century was the most remarkable period in scientific discovery. But, I would have liked to have been born a quarter century earlier,” Teller said. “Then, if a scientist believed in God, he had to admit God was unimportant. But through quantum mechanics, we know that creation is never complete.

“In science, what was impossible 50 years ago is now reality. The next century is unpredictable,” he continued. “Further knowledge for everybody's



JACQUELINE MCBRIDE/TID

Dr. Edward Teller displays the first Hungarian Corvin medal to be awarded since 1930. The Medal recognizes outstanding achievement in the arts and sciences.

benefit; that is my high aim for the next century. I pray, wish and ask for your success.”

Concluding the intimate ceremony, Teller humbly remarked, “What I have done was not easy to do, but I always did what I wanted. I thank you for this honor. I may not have deserved it, but I have certainly enjoyed it.”

His final comments were followed by the national anthems of both Hungary and the United States.

Former Lab director John Nuckolls said after the ceremony that he truly appreciates Teller's “mind, spirit, determination and creativity.”

Nuckolls recognized Teller as a key to the founding of LLNL. “Without Teller,” Nuckolls said, “there would have been no Livermore Lab. He gave the Lab a spirit of public service.”

But Teller's most important contribution, Nuckolls said, was, as President John F. Kennedy said, “the survival of liberty” in Teller's work

during the Cold War.

Today, Nuckolls said, Teller stands for openness in science, and opposition to secrecy.

“He has been a primary mover in the promotion of post-Cold War Russian-American (scientific) cooperation. And he still has much to contribute on the subject of scientific ethics.”

Lowell Wood and John Holzrichter, longtime LLNL colleagues of Teller's, offered heartfelt congratulations to Teller on receiving the award. “We salute your accomplishments, primarily in science, but also in the arts,” Wood said.

Holzrichter particularly thanked Teller for his contributions in the field of education. Teller taught for several decades at UC, where he founded the department of applied science as part of UC Davis at the Livermore site, and at Stanford, where he is still a member of the Hoover Institution on War, Revolution and Peace. “Considering the turbulence in Hungary during Teller's life — in the 1930s under the fascist government, then under the communists after the 1950s, and that during most of that time he was officially considered a ‘non-person’ — the fact that they now, as a fledgling democracy, honor him as a most distinguished Hungarian, is a very moving tribute,” Holzrichter said.

The Corvin Medal comes with the right to bestow a three-year scholarship or grant of approximately \$72,000 to the student or scientist of Teller's choice. “Therefore contributing to the next generation of excellence in science,” Kerek-Barczy said.

Only twelve living people can hold the Corvin Medal, Kerek-Barczy explained. Upon Teller's death, the next recipient's name will be engraved below his on the back of the medal. When the space for names has been filled, the medal will be retired to the Hungarian National Museum in Budapest.

Currently, two other Hungarians stand to receive the award this year: historian John Lukas and Nobel Prize-winning chemist George Olah, both of whom live in the United States.

The full ceremony airs on Lab TV Channel 4 Aug. 27 - 31 at 10 a.m., 1 and 4 p.m.

Arts and education highlight Teller's life of science

By Ali Carrigan

NEWSLINE STAFF WRITER

Edward Teller simply refuses to retire, in the traditional sense of the word. Though he is no longer in the office every day, Teller continues to pursue science while encouraging students to do the same.

Born in Budapest, Hungary, in 1908, Teller did not utter a word until he was three years old. His parents feared retardation, but when the child finally began to speak, it was in complete sentences. Shortly thereafter, he was inventing mathematical games to amuse himself. At an early age, he read and understood Euler's text on algebra. Mathematics professors consulted by Papa Teller regarded the boy as exceptional in the subject.

Teller's early educational ambitions were to study mathematics at the university. He was deterred in this by his father, who, concerned about Edward's professional future, bade him to study chemical engineering. For two years Teller complied, but he was pulled away by the excitement over quantum mechanics, the new theory of physics that was changing the way scientists viewed atoms and molecules. Teller moved to the University of Leipzig, where he studied under Werner Heisenberg.

Just before he entered Leipzig, tragedy struck: Teller, absentmindedly missing his trolley stop, jumped off the vehicle after it had restarted and fell under its tracks. He lost a foot to the accident and has since then depended on a prosthesis. The accident prevented him from engaging in many athletic activities, but his competitive spirit and determination allowed him to excel in one — Ping-Pong. Teller has said that he was not

greatly afflicted by the loss of his foot; Werner Heisenberg has said that it was the hardness of Teller's spirit, rather than stoicism, that allowed him to cope so well with the accident.

Teller met his wife, Augusta Maria, or “Mici,” as she was called, through his friendship with her older brother. The couple married in February 1934 after a long courtship punctuated by separations due to his university studies and appointments. Despite the long hours he devoted to his work and the numerous moves from one laboratory to another, Mici was an integral part of Teller's life for more than 60 years. The family eventually included two children — a son, Paul, and a daughter, Wendy.

Even though Teller's first love is science, he has also pursued other interests throughout his lifetime, among them music. He is an accomplished pianist with an extensive classical repertoire. When relaxing at the piano with Mozart, he is unhappy about being interrupted, as happened one day when Leo Szilard phoned. Fortunately for Szilard, the reason for the call — confirming the fundamental basis for nuclear bombs — was interesting enough to displace Mozart.

The Teller family was deeply affected by both World Wars, and this in turn affected Teller's scientific career. His original desire was to pursue pure science; war turned him into an applied scientist who used his expertise to develop weapons in the service of the United States. His work on the hydrogen bomb was an important accomplishment, especially when the United States began competing with the Soviet Union to develop the H-bomb.

Shortly after World War II, Teller began teaching at the University of Chicago. By 1949, Teller was also the assistant director of Los Alamos National Laboratory in New Mexico. It was at this time that Ernest O. Lawrence invited Teller to the Livermore site, asking him to “consider it as a site for a second laboratory.” Teller gave his blessing, and in 1952, he became a consultant to the newly formed University of California Radiation Lab at Livermore. In 1954, Teller left a teaching post at the University of California and became the associate director of the Livermore Lab. He served as its director from 1958-1960, and guided Lab scientists through tests of the Polaris warhead during his tenure.

Despite resigning as the director of the Livermore Lab, Teller continued to pursue scientific endeavors, though his focus shifted slightly to training the next generation of nuclear scientists. He spent many years as a professor of physics at the University of California. Teller was also the chairman of the UC Davis applied science program for the first three years of its existence, 1963 - 1966.

Today, Teller is Director Emeritus of Lawrence Livermore National Laboratory and senior research fellow at the Hoover Institution at Stanford University.

Teller still speaks several times a year to students in the hopes that sharing his story will inspire the next generation of students to pursue science. He is able to look back with pride on a lifetime of achievements, but Teller's focus has not changed: he continues looking to the future.



NEWS YOU CAN USE

Operations Security tells employees how to avoid identity theft

Described as the fastest growing crime in the United States, identity theft affects 500,000 people a year. It can begin when you hand your credit card to a waiter; before you pick up your mail; before your trash is picked up; when you are on-line or when you just happen to be the next victim through no fault of your own.

The OPSEC Program has invited representatives from the Federal Trade Commission, the Livermore Police Department and the LLNL Office of Investigative Services to discuss this problem with Lab employees at 2 p.m. on August 20 in the Bldg. 123 Auditorium.

All employees are welcome to attend.

The Lab is also inviting the community to a similar presentation at 7 p.m. on August 20 at the Livermore City Council Chambers.



INTERNAL TRANSFER OPPORTUNITIES

AreaTag	Requisition	Classification	Title	Organization
FI	2434	105.2	Administrator	Chief Financial Office
DT	2722	105.3	Senior Administrator	Defense and Nuclear Technologies
NA	2623	200	Deputy Program Manager	NAI
PT	2671	220	Postdoctoral Researcher	Physics & d Advanced Technologies
BS	2695	225	Biomedical Scientist	Biology & Biotechnology Research
BS	2722	225	Biomedical Scientist	Biology & Biotechnology Research
CH	2728	242	Chemist	Chemistry & Materials Science
EP	2652	249	Engineer	Environmental Protection
EP	2653	249	Environmental Engineer	Environmental Protection
PE	2599	249	Mechanical Engineer	Plant Engineering
PE	2600	249	Mechanical Engineer	Plant Engineering
PE	2700	249	Project Manager	Plant Engineering
HC	2656	270	Physicist	Hazards Control
NF	2662	270	Physicist	National Ignition Facility Programs
PT	2553	270	Chief Scientist	Physics & Advanced Technologies
PT	2607	270	Experimental Physicist	Physics & Advanced Technologies
PT	2668	270	Experimental Physicist	Physics & Advanced Technologies
CO	2664	285	Computer Scientist	Computer Applications Organization
CO	2690	285	Computer Scientist	Scientific Computing & Communications
CO	2687	325.1	Computer Support Associate	Computer Applications Organization
DT	2723	405.4	Administrative Specialist IV	Defense and Nuclear Technologies
EE	2743	405.4	Administrative Specialist IV	Electronics Engineering
NF	2229	405.4	Administrative Specialist IV	National Ignition Facility Programs
NA	2466	434.3	Information Systems Assistant	NAI
BS	2711	502.1	Scientific Technician	Biology & Biotechnology Research
EZ	2685	502.1	Scientific Technician	Energy & Environment
ME	2711	533.3	Senior Technologist	Mechanical Engineering
BS	2713	535	Technical Trainee	Biology & Biotechnology Research
EP	2674	707.1	Administrative	Environmental Protection
PE	2701	805.1	Laborer I	Plant Engineering
PE	2393	825.5	Painter Supervisor	Plant Engineering
PE	2361	826.1	Plumber/Fitter	Plant Engineering
PE	2626	851.5	Welder Supervisor	Plant Engineering

Technical Meeting Calendar

Friday
17

CHEMISTRY & MATERIALS SCIENCE

"1H NMR Studies of Structural and Dynamic Properties of Hemoproteins," by Anh-Tuyet

Tran, University of California, Davis. 10 a.m., Bldg. 151, Room 1107 (uncleared area). Contacts: Robert Maxwell, 3-4991, or Bonnie McGurn, 3-2764.

MATERIALS SCIENCE & TECHNOLOGY

"Challenges in Demonstrating the Waste Package Performance Requirements at Yucca Mountain," by Dan McCright. 3:30 p.m., Bldg. 235, room 1090 (uncleared area). Coffee and cookies will be served at 3:20 p.m. Foreign nationals may attend if an appropriate security plan is on file. Contact: Thomas E. Felter, 2-8012.

INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

"Close Pre-Main-Sequence Binaries," by Goesta Gahm, Stockholm Observatory. Noon, Bldg. 319, room 205. Contact: Joanna Allen, 3-0621.

Monday
20

MATERIALS SCIENCE & TECHNOLOGY

"Scanning Tunneling Microscope Studies of Molecular Electronic Properties and Self-Assembly" by David

Padowitz, Amherst College, Mass. 10:30 a.m., Bldg. 151, Stevenson Room (uncleared area). Contact: Alex Hamza, 3-9198, or Roberta Marino, 3-7865.

Tuesday
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INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Multidimensional Upwinding, Preconditioning, and Other Stuff from Michigan" by Philip Roe, University of Michigan. 10 a.m.,

Bldg. 451, room 1025. Contacts: Xabier Garaizar, 3-1521, or Leslie Bills, 3-8927.

Wednesday
22

MECHANICAL ENGINEERING

"ME Design Safety Standards Manual Seminar," by Gus Carlson. 10:30 am., Bldg. 482 auditorium (cleared area). Contact: Bob Murray,

2-0308.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"3D Pore Structure/Fluid Distribution Measurement and Network Model Flow Studies," by Brent Lindquist, State University of New York, Stony Brook. 10 a.m., Bldg. 451, room 1025 (uncleared area). Contacts: Xabier Garaizar, 3-1521, or Leslie Bills, 3-8927.

Thursday
23

PHYSICS & ADVANCED TECHNOLOGIES

"Charge Transfer and the Ejected

Electron Distribution Cross Sections for p+H," by Mathew Fitzpatrick, Texas A&M University. 1:30 p.m. Bldg. 211, room 227 (uncleared area). Contact: Dennis McNabb, 3-0749.

Friday
24

FISSION ENERGY & SYSTEMS SAFETY PROGRAM

"Nuclear Isomers", by John A. Becker, Friday. 1:30 p.m., Bldg. 170, room 1091 (uncleared

area). Contact: Ed Jones, 2-8259.

Wednesday
29

MATERIALS RESEARCH INSTITUTE

"Optical and Dynamic Properties of Semiconductor Nanoparticles: Effects of

Quantum Confinement and Surface" by Jin Zhang, UC Santa Cruz, Bldg. 219, room 163 (open area). Contact: Mike McElfresh, 28686, or Miriam Rinnert, 27369.

The deadline for the next Technical Meeting Calendar is noon, Wednesday, August 22.

Send your input to tmc-submit@llnl.gov. For information on electronic mail or the news-group llnl.meeting, contact the registrar at registrar@llnl.gov.

NEWS OF NOTE



DIVERSITY

Continued from page 1

respective institution, will provide a forum to help NNSA's officials meet diversity goals.

"We need to learn how to better promote a diverse work environment and move toward understanding, not just policy," Gordon said. "We need to do it because it's the law, it's the moral thing to do and most important it's the right thing to do... We need to turn the image around for DOE so it is the place to work.

"We've lost a degree of trust when employees won't go to their first level managers because they fear retaliation or that no action will take place. You deserve a response and interaction and exchange. It's hard to legislate these issues. You need coopera-



tion and trust."

Though he admitted that the Department of Energy doesn't have the best track record, Gordon said those very same issues can be used as a catalyst for change.

He cited the Wen Ho Lee case

“
We need to learn how to better promote a diverse work environment and move toward understanding, not just policy.
”
 — General John A. Gordon

and the incident when Congressman David Wu was not permitted to attend a DOE function because he arrived at the wrong entrance to the building. Though Wu showed his congressional identification card to security officers, he was still not per-

mitted in the building.

"These types of high profile events strengthen tensions that are already out there," Gordon said.

Gordon said that rebuilding trust with the minority community especially within the Asian American community after the Lee case is one of the biggest challenges. He said mentoring and training need to be provided so that all employees are given equal opportunities to move up within the laboratories as well as the NNSA.

During a question and answer session, Gordon addressed questions from the audience, which included Sandia and LLNL employees and the Sandia Albuquerque audience that watched via television link.

Diversity Day on the Green



Photos by Frank Nunez/TID

The third annual Diversity Day on the Green took place recently at the LLESA pool and picnic area. It featured a multicultural menu of food and entertainment, including performances by the Young Eagle Singers and Dancers, tango performances by Tango A Media Luz, a drum jam by Global Rhythm Conspiracy, and dance and music by the Kiki Raina Polynesian Revue. The day closed with a cultural clothing contest, in which employees competed for the most colorful, elaborate, unique or authentic outfit.



CLASSIFIED ADS

See complete classified ad listings at
<https://www-ais.llnl.gov/newsline/ads/>

AUTOMOBILES

1989 - Toyota 4x4 pickup, 5spd
 \$3500.00/BO 925-846-5374

1985 - Peugeot 505 Diesel Wagon A/C,
 AT, AM/FM, sleeps two. Good condition
 in and out, always garaged. \$750 OBO.
 925-484-0672

1973 - 1973 Triumph GT6 new
 tires, shocks, exhaust and battery. Runs
 well, no rust, 68,000 miles 2200.00 or
 B.O. 209-838-7711

1994 - Isuzu Rodeo, 97k miles, Std, PW,
 PS, PD, CC, AM/FM/Cassette, Alarm.
 Good Condition. \$5900/OBO 925-449-
 5723

1988 - Toyota supra 89K miles, original
 owner, AC, PS, Targa roof, white, in excel-
 lent cond. \$5500. 925-449-7003

1993 - Ford Bronco - Eddie Bauer, 85k
 miles, excellent condition. \$7,950 925-
 516-3768

1996 - Ford Mustang. 3.8L, V-6, 5-
 speed, AC, CC, AM/FM, Cass., CD play-
 er, Alarm, Sunroof, Spoiler. 79,000 miles.
 \$9,400. 925-373-4888

1997 - Ford Explorer Sport-White, auto-
 matic, air, new tires, AM/FM/CASS, PS,
 luggage rack, 2dr-2wd -- not the bulky
 model. Like new, 58K miles \$16,000
 925-846-3508

1996 - Chevy Lumina, 4 door, perfect
 condition only 43k miles - \$7750--This is
 a good deal! 925-447-8138

1995 - Toyota Tercel DX, 2Dr, Green,
 86K miles, 31-38 mpg, maintenance
 records avail. Asking \$4500. 510-569-
 3508

1989 - Honda Civic LX, orig. owner,
 good commuter, \$2,000. 209-836-3041

1995 - Bonneville SE. Excel. cond,
 leather seats, new AC, red, loaded. Eye-
 Catcher! \$6,500 obo. or 209-858-1521

1992 - Mustang GT 5.0, power every-
 thing, excellent condition, acceleration
 and handling. Come take a look and
 make offer. 209-836-9082

1990 - Ford Probe GT, fully loaded. 95k
 miles, 12k on new motor and tranny.
 New brakes & tires. \$3000 OBO 925-
 803-1191

1984 - Mercedes Benz 300 Turbo Diesel
 Grey w/black leather interior, 160,000
 miles \$4800 or make offer 925-449-
 1591

1986 - Cadillac Fleetwood de Elegance.
 Leather, loaded, immaculate condition.
 A beautiful well maintained car. \$3,900
 209-545-1308

1999 - Mustang GT, laser red/grey, auto,
 pwr windows, locks, alarm, mach stereo
 system 46,000 mi. 1 owner. \$16,000
 obo. 510-440-8753

1986 - Cad. Cimaron. 85K miles.
 Original owner. Good condition. 1500.00
 or best offer. Call between 5:30 &
 9:00pm 925-443-7656

1994 - Ford Explorer-Eddie Bauer
 model, auto trans, CD player, leather
 seats, sun roof, electronic key, excellent
 condition, 83,000 mi. - \$8,500 925-462-
 8097

1994 - Isuzu Rodeo LS, 4WD, 5 speed,
 V6, Power Doors/Windows, 69,000 mi,
 exc cond. \$7900 925-449-7275

1974 - Vega wagon 350 LT1, TH400, 12
 blt posi. VDO gauges. Fast, fun, done
 right. New everything. Very clean, must
 see. B/O 209-832-7630

1995 - Jeep Grand Cherokee, 4WD
 Laredo, 58K miles, great condition.
 \$10,000 925-454-8982

AUTOMOBILE ACCESSORIES

Overhead rack for small pickup. Fits bed
 60 x 55 1/2. \$50.00 O.B.O 209-832-
 0988

1952 Ford Pick-Up Parts. Have many
 items. Make offer on whole lot or can
 piece out. 209-835-5475

Prelude Si aluminum wheels (4) 2
 w/tires. Will fit many Hondas. B/O. B&M
 gear drive for SBC, ran 1 month. Paid
 \$300 new, B/O 209-832-7630

BICYCLES

Burley bike trailer. 1 or 2 seater with
 trunk space. 2nd owner. Light weight
 and folds up. Well used, but plenty of life
 left. \$125.00 925-455-6785

BOATS

Coleman canoe, 15 foot, two man.
 Includes lifevests. \$100 or BO. 925-373-
 1255

1999 Honda 9.9 H.P. outboard motor
 long shaft 4-stroke. Purchased in 2000,
 new zero hours. \$1600. 925-447-6728

95 Sea-Doo XP, 85hp, Shorelander trail-
 er, Great condition. \$2300. 925-831-
 3913

260 hp Mercruiser stern drive, transom
 unit and stern drive only (no engine).
 \$2500.00 925-455-0859

50 HP Mercury outboard motor. New
 prop, excellent condition. Hear/see it run.
 B/O 209-832-7630

ELECTRONIC EQUIPMENT

TV GE 42 Inch Just back from checkup.
 Great picture. Oak trim cabinet. Will not
 fit opening. \$250. 925-449-3737

Sega Genesis games. Like new. All 5
 are sports. \$15/all. 209-833-1201

HP Draftmaster Plotter, with lots of color
 ink pens. \$400 or b.o. Leave message.
 209-836-4142

New IBM 36GB SCSI hard drive mount-
 ed in case for external use with Mac or
 PC. SCSI cable included. \$175. 925-
 371-1607

Fisher studio standard digital FM receiv-
 er, sony dual cassette deck, philips single
 CD player, 2 Fisher speakers, excellent
 condition. All \$200.00 925-371-6592

Dell Inspiron 3800 Laptop PIII
 600/96mb/10gig/DVD/14.1in Screen
 1100 or best offer 510-910-2883

GIVEAWAY

German Shepherd Purebred - 10 year
 old male with all papers. Obedience
 training, neutered, good temperment.
 925-216-0398

FREE sofa-bed couch GOOD condition,
 except for 1 cushion torn. Great for col-
 lege. 925-516-2726

Free 1975 BMW 2002 body. Has mag
 wheels, good dash. 209-599-7199

Pioneer 6-CD holders for home or car
 pioneer CD player. I have 6 for you.
 925-455-4846

HOUSEHOLD

Kenmore Stacker washer/dryer.
 Excellent condition! Super capacity.
 \$450 obo 209-234-2166

PERSIAN CARPET - 9 X 12 red + navy,
 circa 1920, excellent condition,
 appraised \$6,000-\$8,000. Asking
 \$4,000. Call early evenings. 925-462-
 3189

Lenox stoneware. 8 place set + servers.
 Beautiful condition (1 chipped plate).
 Lifetime quality. This is a BUY at \$275!
 925-455-5439

Computer desk: 59-inch high, 42-inch
 wide, 23-inch deep, simulated-walnut
 finish hutch/desk. \$40/OBO. 925-373-
 0314

Vanity with stool, Italian. Art/Deco style,
 antique gold with mirror table top. Paid
 \$500 will sell for \$250 obo. 925-447-
 5049

Washer & Drier, small Sears, \$150.
 \$175 delivered. 209-869-1191

52 x 43 Greenhouse window. Black
 anodized aluminum frame. New in box.
 \$50.00 O.B.O. 209-832-0988

GARAGE/MOVING SALE! Saturday,
 August 18, 8:00 a.m.-2:00p.m.
 Household, clothing, toys, books, furni-
 ture, frames. 4811 Kimberley-Common,
 Livermore. 925-455-5245

DeWalt 12V cordless drill, circular saw,
 flexible flashlight, 3 XR batteries, charger
 and case. \$150. 925-556-9819

Desk, solid oak, w/5 drawers (includes
 glass overlay top) with matching creden-
 za w/5 drawers, great for printer & fax.
 Excellent condition. \$400. 925-648-
 0671

GE Upright Freezer-wht frostfree auto-
 defrost cap. 20.3 cubic ft. 4yrs old
 \$300.00 209-823-9607

Oak entertainment center, door closure
 for TV, glass closure for stereo equip-
 ment, deep, ex. cond. \$200 925-443-
 8585

Sofa and love seat. Gold fabric. \$125.00
 925-447-6670

Freezer, 17cf. white, upright, works
 great. \$100 OBO 209-836-2511

Chandelier, Octagon. Antique-brass
 frame with clear, beveled glass. 21-inch
 wide. Like new condition. \$40. 925-484-
 0475

LOST & FOUND

FOUND: Blue sweater, for female, in
 Sandia parking lot. Call to identify and
 claim. 925-846-8919

MISCELLANEOUS

New Sports Equipment. XL Harveys
 wetsuit, 5-wheel Rollerblade skates,
 adjustable sit-up bench. All new equip-
 ment. Sell at half price. 925-932-3839

Crosby, Stills and Nash tix at Concord
 Pavilion Wed. Sept 19. Great seats, up
 close in Sec 102 Row E. \$55 - Have up
 to 6 available. 925-513-8211

ZYLISS vice, plane bench, clamp, glue-
 ing press, 4 tools in one. New, in box,
 never opened. \$125. 925-443-2510

Zoppini Charms and Bracelets for pur-
 chase or book a party. Hottest new
 trend! 209-836-1259

Porch Sale Saturday August 25 10:00 to
 4:00 309 North L Street Livermore, Lots
 of LPs and RPMs 925-447-3809

Couch, contemporary in good condition.
 Corduroy fabric, color: medium-brown
 with a mauve hue. \$50.00 925-447-
 2070

60 X 48 insulated window with grids.
 White vinyl. \$25.00 O.B.O. 209-832-
 0988

Century Child car seat, forward facing,
 20 to 60 pounds. Excellent condition.
 \$20.00 209-835-6556

Stationary exercise bicycle: Tunturi 504
 Recumbant Cycle with heart rate moni-
 tor. Paid \$300 new, asking \$100 or best
 offer. 925-455-8823

Dining table, wood w/ leaf, cloth/wood
 seats, better than new, \$250 925-443-
 8585

Taper Attachment for 9 inch Southbend
 lathe \$125, Dremel 232-5 flex-shaft tool
 with foot pedal speed control, and spare
 shaft \$65 925-443-5549

Pictorial history of World War II, 5 vol-
 umes \$60.00 OBO 925-443-1081

Gold wedding band (man). Excellent
 condition, size 9, two-tone, comfort fit.
 \$250/BO 209-835-8976

Tall light oak bookcase. Solid oak. 6ft
 high x 20 in wide x 12 inches deep.
 Adjustable shelves. \$40 925-443-4778

Parts Cleaning Tank Like New. \$75
 925-606-0480

Boppy pillow, \$10. Lightly used, in black
 and white cow fabric. Over-crib diaper
 changing table, \$5. 925-417-8894

MOTORCYCLES

1998 - HD 1200 XLH Sportster Evolution
 - Red, 5.2K miles, original owner, spoke
 wheels, lots of chrome, custom
 upgrades, mint condition. Asking \$9,000.
 530-644-7820

1998 - Honda Shadow Ace 750.
 Fantastic shape. 2400 miles. \$3800
 Firm. 925-447-0546

PETS & SUPPLIES

Chow-Chow Beautiful Red Male 3 years
 old. Very quiet good natured. Free to
 mature adults who understand Chows.
 Not for small children. 925-373-0626

German shepard/pitbull mix 5 month old
 female puppy. Playful with good disposi-
 tion. Shots current. Needs love/attention.
 Free to good home. 209-836-2465

Large dog cage w/floor tray. Train or
 transport. Like new. B/O 209-832-7630

Fml Rotweiler, akc papered, 1yr & 8mos,
 98 lbs., loves kids & cats, nds trng, gd
 home w/lots of play room, indoor/outdoor.
 209-839-8343

Beautiful paint filly, started on cutting, excel-
 lent bloodlines, would make a great
 ranch horse. coming on 4 yrs. your gane
 my loss 4,000. O.B.O 925-371-5371

Free adult female cat, Tortie coloring,
 green eyes, spayed, 6 years old. Moving;
 must give away. 209-835-8065

Dog door for sliding door, size large
 \$50.00 925-443-4349

Reg. Paint, very gentle, excelent ranch
 horse, ropes, cuts cattle, a real good one,
 8 year old gelding. \$4500 209-832-7655

COCKATEILS: 2 same sex, Grey
 w/Yellow & Orange coloring, \$25/each.
 Large cage. 48x36x24 paid \$200 will sell
 for \$150 + SMALL CAGE \$50. 510-581-
 1905

Rott pups 8wks first shots and tail dock
 mother and father on site large size and
 good temperment no papers \$200.00
 209-858-5876

Rotweiler 8mth male, Dalmation mix 3y
 male, Queensland Heeler mix 1.5y male,
 blk female cat 1.5y (fixed/declawed)
 need good homes. (cell) 510-912-4466

Horse Bedding - Dust-free fur shavings
 in plastic bales, compressed 12cf - \$5.75
 each. 925-443-1547

KOI Fish approx. 18in to 24in, healthy &
 in same pond for 7 yrs; \$150-250/BO. Also
 some pond supplies. 209-858-4422

Blue background Plexiglas 55 gallon fish
 tank. Accessories: wood stand, under-
 gravel filters, gravel, rocks and plants. All
 for \$85. (510) 581-3651 510-581-3651

RECREATION EQUIPMENT

Stepper, Precor model 725e. Only used
 1,000,000 steps. \$20 or BO. 925-373-
 1255

Large Mongoose mtn bike \$50.00.
 Yakima rack: gutter mounts & 48in bars
 \$40.00. Steel roof rack for rain gutters w/
 canoe attachment \$30.00 925-455-6785

Snowboard for sale. Hazard brand, Size
 51, red, with bindings. Great condition
 \$225 209-599-5071

RIDESHARING

Modesto/Ripon - Vanpool. 1 seat avail-
 able and going fast! 15 passenger Van
 with all amenities. 8:00 - 4:30 schedule.
 Sleep through the commute. 209-544-
 6411, ext. 2-2727

Tracy - Looking for passengers for new
 carpool. Hours M-F 8-4:45. 209-833-
 1201, ext. 2-9955

Marin County - looking to start/join car-
 pool from Marin to LLNL. 415-482-
 6685, ext. 2-3832

Ceres/Modesto - 14 psgr Enterprise luxu-
 ry vanpool, 7:00-3:30, \$120/month 209-
 537-0229, ext. 3-6631

SERVICES

Exterior House-Painting - Over 15 yrs
 experience. Quality work w/free esti-
 mates. 925-447-5132

Headshots & Distinctive Black & White
 Portraiture for actors, entertainers,
 dancers & musicians. 925-449-0107

Need a new Roof or repairs to your
 existing roof? Give us a call. All Pro
 Roofing, with over 15 years experience.
 925-606-1528

Painting interior, exterior. quality work
 quality paint. neat and clean. free est.
 925-447-0589

Custom Built Cabinets, Kitchen,
 Bathroom, Entertainment Centers, etc.
 also interior trim, unfinished only, 925-
 449-3152

FLOORING INSTALLATION: Carpet,
 linoleum, Kahrs/Pergo. Reliable, reason-
 able rates, 25 years exp. Licensed/
 bonded/insured. 925-516-9510

SHARED HOUSING

Livermore - room available, quiet and
 clean. 450 / month + deposit and 1/3
 utils. 5 mins. to lab. Non-smoker /
 drinker, no pets. Mature single perf. fem.
 925-449-3776

LIVERMORE - - One bedroom, in 4 bed-
 room house with shared bath. Available
 immediately. N/S. Long term/short term
 rates available. 925-216-7286

TRUCKS & TRAILERS

1997 - Chevy Silverado, Exc. Cond.,
 Silver, 5.7ltr, 2wd, full power, king cab 3rd
 door, loaded, 14k/obo. 209-652-3730

1976 - 1976 K5 Chevy Blazer 4-wheel
 drive. Good running condition, good
 tires, locking hubs, all stock. 2599.00 or
 B.O. 209-838-7711

1954 - Chevy truck, All ORIGINAL 6cyl,
 4 speed. Runs good, body is in great
 shape. Perfect project truck. Two many
 toys, not enough time. \$2,500 209-599-
 6449

1978 - Chevrolet Cheyenne Pickup 4X4,
 PS, PB, AT tires, registered, has smog
 certificate, runs strong. Could use some
 work. \$2600 OBO 925-828-9174

1979 - Jeep CJ5 /3sp/ V8 /full roll cage/
 power steering/tilt wheel 209-983-0283

1990 - Ford F-250 XLT Lariat, Extended
 cab, Diesel Engine w/Banks Power Pac.
 \$6250. 209-946-0645

Cab-over camper shell with tool boxes.
 Free. Photo available. 925-443-7828

1993 - GMC Yukon SLE, 4x4, 84K mi.,
 orig. owner, good cond., \$12,000. 209-
 836-3041

1985 - Chevrolet 3/4T, Crew Cab, 152K,
 All Power, Many New Parts, \$3000 925-
 443-4984

1992 - Chev Z71 extcab, exc cond,
 11,000 925-443-6713

1993 - F-150 V8 5.8Lit engine, auto
 trans, 4x4, 69K Mi, a/c/p/s, tilt whl, c/c,
 rear slider, alloy whls 10,875 or B/O.
 Excellent condition. 925-447-8167

1995 - Chevrolet 1500, extended
 cab, short bed, extra clean. 350
 V/8, A/T, P/S, P/B, A/C, 3.73 posi-
 traction, trailer pkg, leather, AM/FM-
 CD+tape. 77K miles. \$15,000 925-443-
 0526

1996 - 3/4 Ton Silverado. Good
 Condition. Tow Pkg. Blue Book Price
 \$12,085. Make Offer 209-835-5475

VACATION RENTALS

SOUTH LAKE TAHOE - 3 Bedroom 2
 Bath Chalet nicely furnished, quiet area,
 all amenities, Park with Lake, tennis,
 etc. RESERVE NOW! 209-599-4644

Puerto Vallarta - , Enjoy the holidays in
 this spacious 2bed/2bath condo on the
 beach. Available 12/27/01 to 01/03/02
 and 01/03/02 to 01/10/02 \$890 ea. wk.
 209-545-1308

Maui, HI - Kahana Reef oceanfront

SITE 300 NEWS



CFF

Continued from page 1

tests with multiple advanced diagnostics, while containing all waste material from the explosion.

Speaking from a dais in the outer support facility, Gen. John A. Gordon, administrator of the National Nuclear Security Administration (NNSA), said of the new facility, "This kind of facility is a wonderful contribution to stockpile stewardship. We are making the best use of the funds we have, tearing down the old and outdated, and building the new. But the real focus of stockpile stewardship is the unique people who do the work we have to do, and will continue to man the experiments in the future."

Lab Director Bruce Tarter told those assembled that the CFF is "the model for a 10-year initiative to modernize the aging nuclear weapons program, and now the anchor for operations at Site 300."

Deputy Director for Strategic Operations Michael Anastasio opened the ceremony by remarking briefly on the history of the plans that became reality in the CFF.

"This a proud moment," he said, "Ten years ago, I remember participating in the decision to invest in environmental protection. I'm glad we pushed for the CFF; it provides a basis for operations at Site 300 for years into the future."

Anastasio spoke of the partnerships that had come together to bring about the completion of this massive project. "This facility represents the partnership between data gathering and simulation capability that is so very central to what we do at the Lab," he said. "It also represents the partnership of the program with the environment and our community."

He especially emphasized the partnership between the Lab and NNSA to bring in this project on time and under budget. He went on to thank NNSA's Barry Williams and "the many team members who worked so hard to make this project a success."

UC Vice President for Lab Management John McTague said of the CF: "This facility is a commitment to the future security of our



MICHAEL ANTHONY/TID

Gen. John Gordon (center), shakes an employee's hand outside the Contained Firing Facility after the official dedication.

nation. It marks the successful collaboration between UC, DOE and NNSA. With the CFF and (LANL's) DART facility, we have unparalleled human and technical resources in high explosives experiments."

Also on hand to add to the ceremony was Camille Yuan-Soo Hoo, of NNSA's Oakland office, who said the CFF "contributes to being a good neighbor, to protecting wildlife and the environment." She also announced that the entire project would be submitted for a Deputy Secretary's Award for Project Management.

Finally, CFF project manager Rick Visoria acknowledged the unflinching teamwork that made the entire project so successful. He credited the work to "a very cohesive team."

The Contained Firing Facility at a glance

- Interior measuring 15.5 by 16.8 meters and 8.2 meters high, designed to contain blast overpressure and fragment effects from detonations of up to 60 kilograms (132 pounds) of high explosives.

- Constructed using 3,100 cubic meters of concrete and 2,000 metric tons of reinforcing steel — enough steel and concrete to build a 16 by 18 meter, 60-story office building. The walls of the firing chamber are 5.5 feet thick and the roof is 6.5 feet thick.

- The inside surfaces of the firing chamber are protected by 50-milimeter-thick steel plates from a spray of shrapnel traveling as fast as 1.5 kilometers per second (more than 3,300 miles per hour) — three times the speed of a bullet.



Operational advantages:

- Can operate around the clock without disturbing neighbors and will not be subject to weather delays that often hampered outdoor testing.

- Will dramatically reduce emissions to the environment and minimize the generation of hazardous waste, noise and blast pressures.

Diagnostics:

- The Flash X-ray Radiography (FXR) remains one of the premier instruments in the world for diagnosing the performance of primaries. One hundred billion times stronger than a typical medical or dental X-ray, the FXR is powerful enough to X-ray dense high explosive experiments.

- Diagnostic framing cameras able to record 2.5 million frames per second.

- Multi-beam velocimeter for recording velocities of imploding metal surfaces.

- Electron-pin diagnostic for position measurements of imploding metal surfaces.

- Laser-illuminated image converter camera and high-speed optics to capture detailed images of implosions.

- Gamma ray camera for better X-ray detection.



From left to right, Bruce Tarter, Michael Anastasio, John McTague, Gen. John Gordon, Camille Yuan-Soo Hoo look on as Lloyd Multhauf, B Division physicist, explains the workings of the Flash X Ray machine at Site 300's Contained Firing Facility. The dignitaries toured the facility just before the official dedication ceremony.



THE BACK PAGE

ASCI

Continued from page 1

ASCI White is comprised of 8,192 commercial, off-the-shelf IBM processors. It was delivered to the Laboratory in 28 moving vans and is located in Bldg. 451 in a 20,000-square-foot computer room, taking up space equal to two NBA basketball courts. Capable of performing 12.3 trillion operations per second, it was rated the world's fastest computer in June by TOP500.

"ASCI White will give our scientists and engineers the ability to perform and visualize three-dimensional, high-fidelity simulations on all aspects of the operation of a nuclear warhead," Gordon said. "This three-dimensional simulation is key to our continuing mission of maintaining the nuclear weapons stockpile and maintaining nuclear deterrence. Using this 3-D, full physics simulation capability will give us the ability to model overall weapon performance, aging and safety.

"Essentially, it is the foundation of science-based Stockpile Stewardship to ensure that the nuclear deterrent will continue to be viable in the absence of underground nuclear testing," Gordon added.

With the supercomputer as the backdrop, the ceremonies began as ASCI Program Leader David Nowak introduced Gordon, along with Lab Director Bruce Tarter, IBM's Managing Director of U.S. Federal Government Anne Altman and UC Vice President for Laboratory Management John P. McTague.

"ASCI White is the triumph of vision, perseverance and plain old fashion hard work," Altman said, noting that ASCI White is a 100-fold increase over the first machine IBM delivered to the Laboratory in 1996 and 1,000 times more powerful than "Deep Blue," the machine that defeated chess champion Garry Kasparov. "Moore's Law has not and will not constrain this program."

McTague, who noted that the Laboratory has been at the forefront of large scale computing since its earliest days, said the three national laboratories — LLNL, Los Alamos and Sandia — are working together through the Accelerated Strategic Computing Initiative.

"These computers are spectacular technological achievements," McTague said. "The more we operate as a system, the better we serve the nation."

Tarter, who spoke after a short video featuring Livermore, Los Alamos and Sandia employees who work on ASCI White, said the supercomputer, by all accounts, is a success.

"ASCI White is now really doing the work of stockpile stewardship. This is the place at which you can say the program is a success," Tarter said. "We now have a mature, bedrock part of stockpile stewardship, which is delivering what it was designed to do."

Following the ceremony, the formalities moved to Bldg. 451's "White" room, a special unclassified facility with a high-resolution video wall where three-dimensional, color computer simulations generated by the White machine can be viewed.

Just a few years ago, computer software with 1-million lines of code were considered gigantic and produced megabytes of output. Output today has progressed beyond megabytes to gigabytes and on to terabytes. Three-dimensional computer simulation is the only practical way to review such massive output.

Sitting inconspicuously near the wall-size screens in the White room sat another collaborative technological breakthrough developed with IBM, who devoted more than \$20-million to the project.

Officially known as the "T-220" and informally called "Big Bertha," this unpretentious prototype desktop monitor is actually the world's largest flat-panel display by pixel count. Measuring only 22 inches diagonally, the T-220 displays data on 9-million pixels.

This capacity is important because, like the wall-sized, multi-screen display nearby, the T-220 can show a complete 100-million-zone, 3-D graphic, mov-



DON GONZALEZ, TID

From right to left: Michael Anastasio, John Best, vice president of technology for IBM, Dona Crawford, Bruce Goodwin and Dave Cooper in the ASCI White machine room during Wednesday's ceremony.

ing the visualization from the theater to the desktop. Once development passes from the prototype to the production stage, this technology should be in place at all three nuclear weapon laboratories.

During the ceremony, Gordon reminded the crowd that ASCI White is another step toward the final goal of 100 tera-OPS (trillion operations per second).

"We plan to achieve 100 tera-OPS by the year 2005. We're not yet halfway there. And the slope toward this goal is as steep as the one we've just climbed," Gordon said. "But the successful application of ASCI White is truly an encouraging step in that direction."

Following the event, General Gordon mingled briefly with the crowd at a reception at the Bldg. 451 patio, before being whisked away for the dedication of the Contained Firing Facility at Site 300 later that afternoon.

David Schwoegler of the Public Affairs Office contributed to this article.

“

ASCI White is now really doing the work of stockpile stewardship. This is the place at which you can say the program is a success.

— C. Bruce Tarter

”

ASCI White at a glance

- Vendor: IBM
- Contract Price: \$110 million
- Number of Processors: 8192
- Miles of Connecting Cable: 49.3
- Total Memory: 4 Terabytes or 4000 Gigabytes
- Rotating Storage Memory Equivalent: 300-million books
- Processor Speed: 12.3 trillion floating operations/second
- Ranked by Speed: World's fastest by a factor of about 2:1.
- Speed Required by 2005: 100-trillion floating operations/second
- Computer Room: 20,000 square feet in Building 451.
- Number of Computer Room Air conditioners: 31
- Cooling Capacity: 2,295 tons moving 620,000 cfm.



NEWSLINE
UC-LLNL
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